

REMARKS

This amendment is responsive to the Office Action dated January 25, 2008. Applicant has amended claims 1–11 and 13–15 and added claims 27–33. Claims 1–33 are pending.

Allowable Subject Matter

In the Final Office Action, the Examiner indicated that claims 16 and 17 are allowable in their present form. Applicant has not amended claims 16 and 17. Therefore, claims 16 and 17 remain in condition for allowance for at least the reasons set out in the Office Action.

Claim Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1–15 and 18–26 under 35 U.S.C. §102(b) as being anticipated by Longo et al. (US 7,159,073). Applicant respectfully traverses the rejection to the extent such rejection may be considered applicable to the amended claims. Longo et al. fails to disclose each and every feature of the claimed invention, as required by 35 U.S.C. §102(b), and provides no teaching that would have suggested the desirability of modification to include such features.

As amended claim 1 recites a method comprising establishing a plurality of queue execution modes by assigning a unique set of tag values for each of the plurality of queue execution modes; and assigning a different unique tag for each of several data access commands, wherein, for each of several data access commands, the assigned unique tag is selected from among the tag values assigned to the plurality of queue execution modes.

In the rejection of claim 1, the Examiner cited Longo et al. as disclosing differing queue execution modes as shown in column 8, line 56 to column 9, line 14. This portion of Longo et al. describes “disk non-queued” commands and “disk queued” commands. However, Longo et al. fails to disclose how a disk drive knows which commands are “disk non-queued” commands and which are “disk queued” commands.

Claim 1 specifies that a plurality of queue execution modes are established by assigning a unique set of tag values for each of the plurality of queue execution modes. In this manner, claim 1 defines how commands are associated with a queue execution mode, though an assigned unique set of tag values. Claim 1 also specifies that each of several data access commands is

assigned a unique tag. In this manner, claim 1 allows for multiple unique tags to be associated with a single queue execution mode. As unique tags are commonly used in communications between a host device and a disc drive to uniquely identify each of several pending data access commands, claim 1 allows for the same tag used to uniquely identify a pending data access command to also be used to identify the queue execution mode for that command. In this manner, queue execution modes can be communicated between a host and a device without communicating bits in addition to a tag already used to uniquely identify a pending data access command.

As previously stated, Longo et al. fails to disclose how a disk drive knows which commands are “disk non-queued” commands and which are “disk queued” commands. For this reason alone, Longo et al. fails to disclose Applicant’s invention as recited in claim 1. Furthermore, without information to the contrary, one of skill in the art would assume that a command modifier would be used to distinguish between “disk non-queued” commands and which are “disk queued” commands in the system of Longo et al. One example of a command modifier is the “head of queue” modifier discussed on page 2, lines 22-25 in the background section of Applicant’s specification as filed. In contrast to a set of tag values assigned to a queue execution mode as recited by claim 1, one of skill in the art would assume a single command modifier could be used to specify a queue execution mode in the system of Longo et al.

For at least these reasons, Longo et al. fails to anticipate the subject matter of independent claim 1 as amended as required to maintain the rejection of claim 1 under 35 U.S.C. §102(b). Further, Longo et al. fails to provide a skilled artisan with any motivation to modify his device to include establishing a plurality of queue execution modes by assigning a unique set of tag values for each of the plurality of queue execution modes. For at least these reasons, the subject matter of claim 1 is not *prima facie* obvious under 35 U.S.C. §103(a) in view of Longo et al.

For similar reasons, Longo et al. fails to anticipate and/or render obvious the subject matter of independent claim 18 as amended. For example, claim 18 recites the features of a memory configured to hold several pending commands for accessing the disc(s), each of the commands having a unique tag, and a controller configured to determine which of a plurality of queue execution modes to use for a selected one of the pending commands based on the selected command’s tag.

Dependent claims 2–15 and 19–26 are patentable for at least the reasons independent claims 1 and 18 are patentable. In addition, dependent claims 2–15 and 19–26 recite additional features not taught or suggested by Longo et al.

For example, with respect to claim 8, Longo et al. fails to teach or suggest wherein the queue execution modes include a plurality of error correction modes. In the rejection of claim 8, the Examiner cited Longo et al. col. 10, ln. 20–25 as disclosing a plurality of error correction modes and specifically quoted Longo et al., “The header for the Command Progress Queue keeps track of error codes for a command.” Applicant respectfully disagrees with the Examiner’s characterization of Longo et al.

Keeping track of an error code as disclosed by Longo et al. is not equivalent to a plurality of error correction modes as recited in claim 8. An error code is simply an indication of an error with respect to execution of a command. An error code itself does not represent the use or selection of different error correction modes in processing of a command. Different error correction modes provide different techniques for processing commands. For example, as disclosed on page 4, lines 21–23 of Applicant’s specification as filed, a queue execution mode suitable for video data can provide no error correction or less than standard error correction. Longo et al. fails to disclose or suggest different error correction modes.

As another example, with respect to claims 25 and 26, Longo et al. fails to teach or suggest a plurality of queue execution modes that include at least a standard mode and a video mode. In the rejection of claims 25 and 26, the Examiner failed to address this feature whatsoever. Applicant finds no portion of Longo et al. that could be considered to disclose a plurality of queue execution modes that include at least a standard mode and a video mode. Some articulated reasoning with some rational underpinning is required to support a rejection, and with respect to claims 25–26 this reasoning has not been included in the Office Action.¹ In the event the Examiner continues to maintain the rejection of claims 25 and 26, Applicant respectfully requests the Examiner explain with specificity where he considers Longo et al. to disclose such a feature.

Longo et al. fails to disclose each and every limitation set forth in claims 1–15 and 18–26. For at least these reasons, the current rejection fails to establish anticipation of Applicant’s

¹ See, e.g. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. ___, 82 USPQ2d 1385, 1396 (2007).

claims 1-15 and 18-26 as required to maintain the rejection under 35 U.S.C. §102(b).
Withdrawal of this rejection is requested.

New Claims

Applicant has added claims 27-33 to the pending application. The applied references fail to disclose or suggest the inventions defined by Applicant's new claims, and provide no teaching that would have suggested the desirability of modification to arrive at the claimed inventions. As one example, the references fail to disclose or suggest a method comprising assigning a different unique tag for each of several data access commands; and for each of the data access commands, executing the data access command according to one of a plurality of queue execution modes, wherein the one of a plurality of queue execution modes is selected based on the data access command's unique tag, as recited by claim 33.

No new matter has been added by the new claims.

CONCLUSION

All claims in this application are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of all pending claims. Applicant does not acquiesce with any of the Examiner's current rejections or characterizations of the prior art, and reserves the right to further address such rejections and/or characterizations.

Please charge any additional fees or credit any overpayment to deposit account number 50-1778.


The Examiner is invited to telephone the below-signed attorney to discuss this application.

Date:

May 27, 2008

SHUMAKER & SIEFFERT, P.A.
1625 Radio Drive, Suite 300
Woodbury, Minnesota 55125
Telephone: 651.286.8347
Facsimile: 651.735.1102

By:


Name: Daniel T. Lund
Reg. No.: 58,614